## Appendix 2 - FY 2013 Research Summary and Index, Revision 3

\$PR-3(042)	Administration -	· 771				
DOT Library Support   S177.000   S101,000   Knight   Annual   General Funds for Future Needs   S23,000   S2,000   Knight   Annual   S23,000   S2,000   Knight   Annual   S23,000   S2,000   S2,000   S20,000   S00,000	Project No.	Project Title	Total Funds	Federal Funds	Iowa DOT Contact	No. Years
Research Monitoring and Technical Support Total   \$225,905   \$209,905   \$7.					Ü	
Project No.   Project Title					Knight	
Project No.   Project Title	Pooled Fund Stu		\$233,703	\$207,703		
\$PR-3(042)			Total Funds	Federal Funds	Iowa DOT Contact	No. Years
TFF-5(090)   SICOP   Computer-Based Training System on A/RWIS)   50   50   A. Dunn   2+	TPF-5(413)	NCHRP			• • • • • • • • • • • • • • • • • • • •	
TPF-5(045)   Traffic Control Device Consortium   \$20,000   \$20,000   Crouch   Annual   TPF-5(091)   Smart Work Zone Deployment Initiative   \$45,000   \$45,000   \$45,000   Crouch   Annual   TPF-5(091)   Development of Safety Improvements   \$30,000   \$45,000   Vortherms   Annual   TPF-5(170)   Development of Safety Improvements   \$30,000   \$30,000   Vortherms   Annual   TPF-5(171)   Development of Performance Properties of Ternary Mixes   \$50   \$50   Hanson   1   TPF-5(171)   Development of Performance Properties of Ternary Mixes   \$50   \$50   Hanson   1   TPF-5(170)   TPF-5(170)   PPF-5(170)   Technology Transfer Concrete Consortium (TTCC)   \$10,000   \$10,000   Merryman/flanson   Annual   TPF-5(170)   Technology Transfer Concrete Consortium (TTCC)   \$10,000   \$10,000   Merryman/flanson   Annual   TPF-5(170)   Technology Transfer Concrete Consortium (TTCC)   \$10,000   \$10,000   Merryman/flanson   Annual   TPF-5(170)   Technology Transfer Concrete Consortium (TTCC)   \$10,000   \$10,000   Merryman/flanson   Annual   TPF-5(170)   Technology Transfer Concrete Consortium (TTCC)   \$10,000   \$10,000   Merryman/flanson   Annual   TPF-5(170)   Mix and Design Analysis   Technology Transfer Concrete Pavements   \$35,000   \$35,000   Maifield   Annual   TPF-5(205)   Mix and Design Analysis   Transportation Curriculum Coordination   Study   \$50   \$50,000   Transportation Curriculum Coordination   Technology Transfer and Road Research Alliance (TERRA)   \$55,000   \$25,000   C. Anderson   Annual   TPF-5(218)   Transportation Eigineering and Road Research Alliance (TERRA)   \$55,000   \$55,000   C. Anderson   Annual   TPF-5(219)   Transportation Eigineering and Road Research Alliance (TERRA)   \$55,000   \$50,000   Annual   TPF-5(219)   Transportation Eigineering and Road Research Alliance (TERRA)   \$55,000   \$50,000   Annual   TPF-5(219)   Transportation Eigineering and Road Research Alliance (TERRA)   \$55,000   \$50,000   Annual   TPF-5(219)   Transportation Eigineering and Road Research Alliance (TERRA)   \$55,000   \$50,000   Annual						
TRF-5(081)   Smart Work Zone Deployment Initiative						
TPF-5(1099)   Evaluation of Low Cost Safety Improvements						
TRF-5(100)   Delcor Scaling of Slag Cement Products   \$0   \$0   Hanson   1						
TRF-5(139)   PCC Surface Characteristics - Part 3   S0   \$10   Mansson   1	TPF-5(100)					
TFF-5(150   Mississippi Valley Freight Coalition	TPF-5(117)				Hanson	1
TFF-5(159)   Integral Abutments on Moderately Curved Girder Bridges   \$0   \$0   \$0   \$0   \$0   \$0   \$0   \$						
Integral Abutments on Moderately Curved Girder Bridges   \$0						
TPF-5(193)					<u> </u>	
TPF-5(205)   Midwest States Crash Test Program   was SPR-3(017)   \$65,000   \$65,000   Maiffield   Annual   TPF-5(205)   Mix and Design Analysis   \$0   \$0   \$0   \$0   \$0   \$0   \$0   \$	IPF-5(169)	, , ,		·		
TFF-5(205)   Mix and Design Analysis   S0   S0   Hanson   1	TPF-5(183)		·			
TFF-5(207)   Novice (School Age) Drivers - Million Mile Study   \$0   \$0   \$0   \$0   \$0   \$0   \$0   \$						
TPF-5(209)   Transportation Curriculum Coordination Council (TCCC) was TPF-   \$25,000   \$25,000   C. Anderson   Annual S(046)   TPF-5(215)   Transportation Engineering and Road Research Alliance (TERRA)   \$7,500   \$7,500   M. Dunn   2   TPF-5(218)   Clear Roads   was TPF-5(092)   \$25,000   \$25,000   Seb.0,000   Abu-Hawash   2   TPF-5(224)   Joint Deterioration in Concrete Pavements   \$50,000   \$50,000   Abu-Hawash   2   TPF-5(224)   Joint Deterioration in Concrete Pavements   \$0   \$0   Manson   1   TPF-5(231)   Enterprise (IVHS Study)   was SPR-3(020)   \$30,000   \$30,000   Stolle   Annual TPF-5(232)   Impacts of Implements of Husbandry on Bridges   \$0   \$0   M. Dunn   3   TPF-5(233)   Tech Transfer Intelligent Compaction Consortium (TTICC)   \$9,000   \$9,000   M. Dunn   3   TPF-5(237)   Transportation Library Connectivity & Development was TPF   \$5,000   \$5,000   Librarian   Annual TPF-5(238)   Fracture Critical Concerns in 2 Girder Bridge Systems   \$20,000   \$20,000   Abu-Hawash   2   TPF-5(238)   Fracture Critical Concerns in 2 Girder Bridge Systems   \$20,000   \$12,000   M. Dunn   2   Transfer   Transportation Maintenance Innovation Implementation and Tech   Transfer   Transportation of Sind Sulder Forts   Transportation of Sind Sulder Forts   \$15,000   \$15,000   Abu-Hawash   3   TPF-5(260)   Next-Generation Transportation Construction Management   \$25,000   \$25,000   Smythe   2   TPF-5(253)   Evaluation of Sign Guide Forts   Stole Members   \$25,000   \$20,000   Crouch   2   TPF-5(247)   Prise   Teleph Teach   Transportation Construction Technologies   Sign Sign Sign Sign Sign Sign Sign Sign		Novice (School Age) Drivers - Million Mile Study				1
TPF-5(218)   Clear Roads   Was TPF-5(092)   \$25,000   \$25,000   Greenfield   Annual TPF-5(219)   Structural Health Monitoring   \$50,000   \$50,000   Abu-Hawash   2   TPF-5(231)   Enterprise (IVHS Study)   Was SPR-3(020)   \$30,000   \$30,000   Stolle   Annual TPF-5(231)   Enterprise (IVHS Study)   Was SPR-3(020)   \$30,000   \$30,000   Stolle   Annual TPF-5(231)   Impacts of Implements of Husbandry on Bridges   \$0   \$0   M. Dunn   3   TPF-5(232)   Impacts of Implements of Husbandry on Bridges   \$0   \$0   M. Dunn   3   TPF-5(233)   Tech Transfer Intelligent Compaction Consortium (TTICC)   \$9,000   \$9,000   M. Dunn   3   TPF-5(237)   Transportation Library Connectivity & Development was TPF   \$5,000   \$5,000   Librarian   Annual S(105)   S(105)   Annual TPF-5(238)   Fracture Critical Concerns in 2 Girder Bridge Systems   \$20,000   \$20,000   Abu-Hawash   2   TPF-5(238)   Acceleration Maintenance Innovation Implementation and Tech   \$12,000   \$12,000   M. Dunn   2   Transfor T	TPF-5(209)	Transportation Curriculum Coordination Council (TCCC) was TPF-	, .			Annual
TPF-5(219)	TPF-5(215)	Transportation Engineering and Road Research Alliance (TERRA)	\$7,500	\$7,500	M. Dunn	2
TPF-5(224)	TPF-5(218)	Clear Roads was TPF-5(092)	\$25,000	\$25,000	Greenfield	Annual
TPF-5(231)	TPF-5(219)					2
TPF-5(232)   Impacts of Implements of Husbandry on Bridges   \$0   \$0   M. Dunn   3						· ·
Tech Transfer Intelligent Compaction Consortium (TTICC)						
1975-5(238)	TPF-5(232)					
TPF-5(2(38)	TPF-5(237)		\$5,000	\$5,000	Librarian	Annual
Transfer	TPF-5(238)	Fracture Critical Concerns in 2 Girder Bridge Systems	\$20,000	\$20,000	Abu-Hawash	2
TPF-5(260)   Next-Generation Transportation Construction Management   \$25,000   \$25,000   Smythe   2	TPF-5(239)	·	\$12,000	\$12,000	M. Dunn	2
TPF-5(262)	TPF-5(254)					
TPF-5(253)   Member-Level Redundancy in Built-Up Steel Members   \$25,000   \$25,000   Abu-Hawash   3						
TPF-5(247)		Momber Level Podundancy in Built Up Steel Members				
TPF-5(269) was Sol 1309	TPF-5(247)	Field Testing Hand-held Thermo-graphic Inspection Technologies				
Reorganization of Section 5, Concrete Structures, of the AASHTO \$10,000 \$10,000 \$N. McDonald \$3  TPF-5(272) was Sol 1326  TPF-5(272) was Sol 1311  TPF-5(275) was Sol 1330  Solicitation Implementation Strategies  Solicitation 1329  General Funds for Future Pooled Fund Projects  Pooled Fund Studies Total \$1,087,500 \$1,0	, ,	Development of an Improved Design Guide for Unbonded	\$20,000	\$20,000	C. Brakke	3
TPF-5(272) was Sol 1311 Dedicated Wall Site Stanton of Lateral Pile Resistance Near MSE Walls at a Dedicated Wall Site Stanton Strategies Stanton Implementation Strategies Stanton Implementation Strategies Stanton Strategies Stanton Description Stanton Strategies Stanton Stanton Stanton Strategies Stanton Sta	TPF-5(271)	Reorganization of Section 5, Concrete Structures, of the AASHTO	\$10,000	\$10,000	N. McDonald	3
TPF-5(275)	TPF-5(272) was	Evaluation of Lateral Pile Resistance Near MSE Walls at a	\$10,000	\$10,000	R. Stanley	2
Next Generation Concrete Pavement Road Map   \$15,000	TPF-5(275)	2014 Asset Management Conference and Training on	\$10,000	\$10,000	M. Haubrich	5
General Funds for Future Pooled Fund Projects   \$27,000   \$27,000   \$1,087,500   \$	Solicitation	·	\$15,000	\$15,000	L. Narigon	1
Project No.   Project Title   Total Funds   Federal Funds   Towa DOT Contact   No. Years	1327	General Funds for Future Pooled Fund Projects	\$27,000	\$27,000	Knight	
Project No. Project Title Total Funds Federal Funds I owa DOT Contact No. Years  Reoccurring I tems  RB15-013 Basic Agreement with InTrans \$270,000 \$216,000 Knight Annual RB26-013 *AASHTO - NTPEP (Product Evaluation) \$7,500 \$7,500 Berger Annual RB26-013 *AASHTO - APEL (Approved Product Evaluation List) \$1,200 \$1,200 Dunn Annual					J	
Reoccurring Items           RB15-013         Basic Agreement with InTrans         \$270,000         \$216,000         Knight         Annual           RB26-013         *AASHTO - NTPEP (Product Evaluation)         \$7,500         \$7,500         Berger         Annual           RB26-013         *AASHTO - APEL (Approved Product Evaluation List)         \$1,200         \$1,200         Dunn         Annual	Technology Tran	nsfer - 774				
RB15-013         Basic Agreement with InTrans         \$270,000         \$216,000         Knight         Annual           RB26-013         *AASHTO - NTPEP (Product Evaluation)         \$7,500         \$7,500         Berger         Annual           RB26-013         *AASHTO - APEL (Approved Product Evaluation List)         \$1,200         \$1,200         Dunn         Annual	Project No.	-		Federal Funds	Iowa DOT Contact	No. Years
RB26-013         *AASHTO - NTPEP (Product Evaluation)         \$7,500         \$7,500         Berger         Annual           RB26-013         *AASHTO - APEL (Approved Product Evaluation List)         \$1,200         \$1,200         Dunn         Annual	DD15 012			\$214,000	Vnight	Appus
RB26-013 *AASHTO - APEL (Approved Product Evaluation List) \$1,200 \$1,200 Dunn Annual						
	RB26-013					
	RB26-013					

RB32-013  RB33-013  RB10-013  RB11-013  G  Highway Research  Project No.  Various  RB12-013  D	Bridge Load Rating Though Physical Testing Bridge Deck Joint Repair Investigation 1013 Peer Exchange 1013 Research Symposium 1014 General Funds for Future Projects 1015 Technology Transfer Total 1016 * Items with 100% Federal Share	\$31,000 \$50,000 \$20,000 \$35,000 \$184,517 <b>\$2,332,217</b> Total Funds \$720,000 \$40,000 \$45,000	\$40,000 \$16,000 \$28,000 \$147,614 \$1,877,114 Federal Funds \$576,000 \$32,000	J. Nelson L. Narigon L. Narigon Knight Iowa DOT Contact Knight Schram	1 2 1 1 1 1 1 No. Years
RB32-013  RB33-013  RB10-013  RB11-013  G  Highway Research  Project No.  Various  S	ridge Load Rating Though Physical Testing ridge Deck Joint Repair Investigation  1013 Peer Exchange 1013 Research Symposium 1014 Funds for Future Projects  Technology Transfer Total  * Items with 100% Federal Share  1015 Project Title  1016 State Research Program-Research Support	\$50,000 \$20,000 \$35,000 \$184,517 \$2,332,217 Total Funds \$720,000	\$40,000 \$16,000 \$28,000 \$147,614 \$1,877,114 Federal Funds \$576,000	J. Nelson L. Narigon L. Narigon Knight Iowa DOT Contact Knight	2 1 1 
RB32-013 RB33-013 RB10-013 RB11-013 G  Highway Research Project No.	ridge Load Rating Though Physical Testing ridge Deck Joint Repair Investigation 2013 Peer Exchange 2013 Research Symposium Seneral Funds for Future Projects  Technology Transfer Total  * Items with 100% Federal Share  n Support - 775  Project Title	\$50,000 \$20,000 \$35,000 \$184,517 \$2,332,217	\$40,000 \$16,000 \$28,000 \$147,614 \$1,877,114	J. Nelson L. Narigon L. Narigon Knight Iowa DOT Contact	2 1 1 1
RB32-013  RB33-013  RB10-013  20  RB11-013  G  Highway Research	ridge Load Rating Though Physical Testing ridge Deck Joint Repair Investigation  1013 Peer Exchange  1013 Research Symposium  1013 Research Symposium  1014 Feer Exchange  1015 Research Symposium  1016 Feer Exchange  1017 Research Symposium  1018 Feer Exchange  1019	\$50,000 \$20,000 \$35,000 \$184,517 \$2,332,217	\$40,000 \$16,000 \$28,000 \$147,614 \$1,877,114	J. Nelson L. Narigon L. Narigon Knight	2 1 1 1
RB32-013 Bi RB33-013 Bi RB10-013 20 RB11-013 G	Bridge Load Rating Though Physical Testing Bridge Deck Joint Repair Investigation 1013 Peer Exchange 1013 Research Symposium 1014 General Funds for Future Projects 1015 Technology Transfer Total 1016 * Items with 100% Federal Share	\$50,000 \$20,000 \$35,000 \$184,517	\$40,000 \$16,000 \$28,000 \$147,614	J. Nelson L. Narigon L. Narigon	1 1
RB32-013 Bi RB33-013 Bi RB10-013 20 RB11-013 20	Bridge Load Rating Though Physical Testing Bridge Deck Joint Repair Investigation 1013 Peer Exchange 1013 Research Symposium Beneral Funds for Future Projects	\$50,000 \$20,000 \$35,000 \$184,517	\$40,000 \$16,000 \$28,000 \$147,614	J. Nelson L. Narigon L. Narigon	1 1
RB32-013 Bi RB33-013 Bi RB10-013 20 RB11-013 20	Bridge Load Rating Though Physical Testing Bridge Deck Joint Repair Investigation 1013 Peer Exchange 1013 Research Symposium Beneral Funds for Future Projects	\$50,000 \$20,000 \$35,000 \$184,517	\$40,000 \$16,000 \$28,000 \$147,614	J. Nelson L. Narigon L. Narigon	2 1
RB32-013 Bi RB33-013 Bi RB10-013 20 RB11-013 20	Bridge Load Rating Though Physical Testing Bridge Deck Joint Repair Investigation 1013 Peer Exchange 1013 Research Symposium	\$50,000 \$20,000 \$35,000	\$40,000 \$16,000 \$28,000	J. Nelson L. Narigon L. Narigon	2 1
RB32-013 Bi RB33-013 Bi RB10-013 20	Bridge Load Rating Though Physical Testing Bridge Deck Joint Repair Investigation 1013 Peer Exchange	\$50,000 \$20,000	\$40,000 \$16,000	J. Nelson L. Narigon	2 1
RB32-013 Bi	Bridge Load Rating Though Physical Testing Bridge Deck Joint Repair Investigation	\$50,000	\$40,000	J. Nelson	2
RB32-013	Bridge Load Rating Though Physical Testing		-		
IRB32-013 IP	not rroject – Demonstration of Capabilities and Belletits of	¢31 000	424 BUU	M Dunn	
I In	ilot Project – Demonstration of Capabilities and Benefits of		l	1	
	HWA specialized training support	\$6,000	\$4,800	L. Narigon	1
C	Curved and Skewed Steel Bridges		-		
	IHI Course 130095A Fundamental and Structural Analysis for	\$16,000	\$12,800	Nielsen	1
	valuation of Portable Sonar Monitoring Devices	\$0	\$0	Todsen	1
RB08-013	Deterioration Due to Chlorides	\$65,000		Port	1
l IT.	reatment and Repair of Existing P/S Concrete Beam Ends from				
RB07-013 A	accelerated Bridge Construction Connection Detail Testing	\$50,000	\$40,000	Abu-Hawash	1
RB06-013	owa Accelerated Bridge Construction Connections - Working standards and Design Examples	\$50,000	\$40,000	J. Nelson	2
A	valuating the Relationship between the Driver and Roadway to address Rural Intersection Safety (SHRP 2)	\$148,000	\$118,400	Larson	1
	Synthesis of Rural Road Safety Technologies	\$35,000		L. Narigon	1
	raffic Speed for Winter Performance Measures	\$65,000			1
	alt Retention Study	\$25,000			1
	valuation of PCI Equations	\$75,000		Haubrich	1
	n the Midwest	\$70,000	-		1
S S	Study of the Regulatory Issues Affecting Truck Freight Movement				
ND20-U13 3		nis Fiscal Year	φ000,000	IVI. DUITIT	
	State Research Program-IHRB	\$85,000 \$750,000			1
	RFD Design of Drilled Shafts  Maintenance Asset Management (Phase 2)	\$50,000 \$85,000		Abu-Hawash Haubrich	1
	avement Marking Management System	\$25,000			1 1
	Bridge Deck Epoxy Injection Process	\$35,000		M. Dunn	5
	Research Implementation	\$60,000			5+
	Conference Plan	\$15,000		L. Narigon	5+
	Seotechnical Support	\$50,000		M. Dunn	Annual
	Remote Sensing Support	\$10,000		Samson	Annual
	AASHTO - SICOP	\$4,000			Annual
	AASHTO - Environmental Technical Assistance Program	\$8,000			Annual
	AASHTO - LRFD Specification Maintenance	\$10,000		McDonald	Annual
	AASHTO - TSP2	\$20,000			Annual

<sup>\*</sup>The unobligated fund estimate is a preliminary determination, we expect to discover and document additional unobligated funds as we continue to evaluate and close out projects.